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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,327	02/28/2002	Yasushige Nakamura	000738a	8134

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ARMSTRONG, WESTERMAN & HATTORI, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

RODEE, CHRISTOPHER D

ART UNIT PAPER NUMBER

1756

/ 0

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,327	NAKAMURA ET AL.	
	Examiner	Art Unit	
	Christopher D RoDee	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 11, 13-16, 18-26 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 13-16 and 18-22 is/are allowed.
- 6) ☒ Claim(s) 11, 23-26 and 28-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6 February 2003 has been entered.

Claim Rejections - 35 USC § 112

Claims 11, 23-26, and 28-32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 11 has been amended to include limitations on the image forming unit. Specifically, the image forming unit contains a latent image carrier, a developing means for supplying toner to the latent image carrier, and a transfer unit for transferring the toner on the latent image carrier to a medium. Applicants state that basis for this amendment is found on specification page 10, lines 8-18 (see response p. 7). A review of this portion of the specification shows that the passage refers to Figure 1. In description of this Figure the specification discloses "a photosensitive drum" rather than a latent image carrier as claimed (spec. p. 11-12). These components do not have the same scope. The latent image carrier includes materials that are not photosensitive. For example, a non-photosensitive dielectric surface can have a latent image, such as when formed by an ionographic stylus. This dielectric surface is included within the scope of the claims but is not

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described by the specification. The developing means (device) is also disclosed only as one that supplies a two-component developer to the photosensitive member (p. 10, l. 12-13). There is no disclosure of a printer that has a developing device for a one-component developer (toner alone) or multi-component developer (two carriers and a toner).

The Examiner has reviewed the specification and was unable to find basis for the noted limitations in claim 11 as amended. However, if applicants believe that there are other portions of the specification that provide basis for the claims they are asked to refer the Examiner to the appropriate page and line of the disclosure.

The previously applied rejections under this section are withdrawn based upon applicants' amendments and remarks. With respect to the molecular weight basis, the disclosure of the measurement method (by gel permeation chromatography) provides reasonable guidance for the molecular weight, particularly for the low numerical values claimed and the guidance in the specification concerning these components (e.g., spec. p. 5, l. 7-12).

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11, 23-26, and 28-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirao *et al.* in US Patent 6,175,715.

This rejection was set forth in the prior Office actions. The claims have been amended to include a latent image carrier, a developing means for supplying toner to the latent image carrier, and a transfer unit for transferring the toner on the latent image carrier to a medium.

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These apparatus components are disclosed in Hirao (col. 13, l. 36+). Hirao discloses an image forming apparatus that contains an image forming unit as an exposure LED **216** with chargers **215** that form an electrostatic image on the photosensitive drum **211** (i.e., a latent image carrier). An electrostatic image is developed by developing unit **219**, which contains toner from a toner hopper **218**. Toner is fed to develop the image on the photosensitive member. The developed image on the photosensitive member then transferred to a receiver at transfer station **212**. The transferred toner is fixed at fixing station **410** by flash fusing light **412**. Near the fusing station is a blower **8** that collect smoke, odor, and high molecular weight organic substances in filter **82**.

Hirao discloses each of the structural components and their relationships to each other as required by the instant claims.

As noted previously, the toner is a material acted upon by the apparatus. It is consumed as a necessary part of the apparatus's operation. Once the toner is consumed the apparatus still exists with the requisite image forming unit, flash fixing unit, and filter. The claimed toner does not define over the art because the structure of Hirao's apparatus is the same as structure in the instant claims. Applicants have not specified those structural features that are different in the instant claims versus those structural features in Hirao.

The traversal contains an apparent editorial mistake in reproducing a limitation added to claim 11. The claim states, "a developing means for supplying toner containing a binder resin to said latent image carrier" not to a flash fixing unit. The Examiner has considered the traversal as if the language actually present in the claims was referred to.

The rejection is still pertinent to the instant claims and is maintained. See MPEP 2114 and 2115.

Claim Rejections - 35 USC § 103

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirao *et al.* in US Patent 6,175,715 in view of the admitted art.

Hirao was discussed above as including those structures now claimed in this claim by its dependence on claim 11. The reference does not specify that a high efficiency particulate air filter was used to collect the smoke, odor, and high molecular weight organic substances as filter **82**. However, the admitted art in the recent response states that HEPA filters are known (i.e., "well established") in the art to collect 99.97% of the particles up to one micron in size.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a HEPA filter as the filter **82** in Hirao because Hirao desires a filter that will collect the noted compounds and HEPA filters are well known in the art to be extremely effective at collection of particles up to a micron in size. Such sizes would appear to include smoke and high molecular weight organic substances.

Applicants traverse this rejection based on the amendment to independent claim 11 (see response p. 8, bottom). The Examiner will maintain the rejection for the same reasons as given above and because each structural component of the claimed apparatus is disclosed by the references in combination. No specific reasons for traversal of the obviousness of using a HEPA filter in Hirao have been advanced nor have applicants disagreed with the Examiner's position that the previous statements by applicants constitute an admission that HEPA filters are prior art.

The rejections are maintained.

Allowable Subject Matter

Claims 9, 13-16, and 18-22 are allowed. Applicant's remarks in the recent response have been relied upon to overcome the art rejections of record over these claims. Although toners with binders meeting the molecular weight requirements of the instant claims are known in the art and flash fixing where a sublimite is collected is known, there is not sufficient motivation to use the known toners in a flash fixing process, particularly where the known toners' binders produce a sublimite that is collected by the filter. The references that disclose the toner use contact fixing devices (e.g., EP '046 Fig. 2 & p. 25) and there is not sufficient motivation to use these toners in a flash fixing process (see typical flash fixing properties at spec. p. 10, l. 22-24).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.



cdr
March 17, 2003

**CHRISTOPHER RODEE
PRIMARY EXAMINER**